

**THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:**

1. A pharmaceutical composition for treating a mammal having metabolic abnormalities resulting from insulin resistance comprising an effective amount of at least one polymethoxyflavone compound and a suitable pharmaceutically acceptable diluent, carrier or adjuvant.
2. The composition of claim 1 wherein said polymethoxyflavone is chosen from sinensetin, nobilten, tangeretin, heptamethoxyflavone, tetramethylscutellarein and mixtures thereof.
3. The composition of claim 2 wherein said polymethoxyflavone is tangeretin.
4. The composition of claim 1 wherein said at least one polymethoxyflavone comprises a mixture of various polymethoxyflavone compounds.
5. The composition of claim 4 wherein said mixture comprises sinensetin, nobilten, tangeretin, heptamethoxyflavone, and tetramethylscutellarein.
6. The composition of claim 1 wherein said composition is prepared for administration by a means chosen from oral, transdermal, rectal, intravenous, intramuscular, intraperitoneal subcutaneous, topical, or by inhalation.
7. The composition of claim 1 wherein said composition is administered orally.
8. The use of a metabolic abnormality reducing amount of at least one polymethoxyflavone in a mammal experiencing insulin resistance syndrome.
9. The use as claimed in claim 8 wherein said polymethoxyflavone is chosen from sinensetin, nobilten, tangeretin, heptamethoxyflavone, tetramethylscutellarein and mixtures thereof.

10. The use as claimed in claim 8 wherein said polymethoxyflavone is tangeretin.
11. The use as claimed in claim 8 wherein said at least one polymethoxyflavone comprises a mixture of various polymethoxyflavone compounds.
12. The use as claimed in claim 11 wherein said mixture comprises sinensetin, nobilten, tangeretin, heptamethoxyflavone, and tetramethylscutellarein.
13. The use as claimed in claim 8 wherein said at least one polymethoxyflavone is administered by a means chosen from oral, transdermal, rectal, intravenous, intramuscular, intraperitoneal subcutaneous, topical, or by inhalation.
14. The use as claimed in claim 8 wherein said at least one polymethoxyflavone is administered orally.
15. A method of treating a mammal having metabolic abnormalities resulting from insulin resistance comprising administering an effective amount of at least one polymethoxyflavone compound.
16. The method of claim 15 wherein said polymethoxyflavone is chosen from sinensetin, nobilten, tangeretin, heptamethoxyflavone, tetramethylscutellarein and mixtures thereof.
17. The method of 15 wherein said polymethoxyflavone is tangeretin.
18. The method of claim 15 wherein said at least one polymethoxyflavone comprises a mixture of various polymethoxyflavone compounds.
19. The method of claim 18 wherein said mixture comprises sinensetin, nobilten, tangeretin, heptamethoxyflavone, and tetramethylscutellarein.

20. The method of claim 15 wherein said at least one polymethoxyflavone is administered by a means chosen from oral, transdermal, rectal, intravenous, intramuscular, intraperitoneal subcutaneous, topical, or by inhalation.
21. The method of claim 15 wherein said at least one polymethoxyflavone is administered orally.
22. The method of claim 15 wherein said at least one polymethoxyflavone is administered to said mammal in an amount of up to 5000 mg/day.
23. The method of claim 22 wherein said at least one polymethoxyflavone is administered to said mammal in an amount of up to 70 mg/kg/day, based on the weight of said mammal.